DETAILED ACTION

Claim Objections

1. Claims 2-4 and 11-13 are objected to because of the following informalities: Claims 2-4 and 11-13 are duplicate claims. One of these sets of claims is suggested to be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2-7 and 9-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Melick et al. (US 2003/0228005).

Regarding claims 2-4, Melick et al. discloses the ultra-wideband signal (Gaussian pulses) comprises an impulse radio signal (see sections 0197 and 0198), the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds (see sections 0167-0167,wherin 6.67 is in that range),

and the ultra-wideband signal comprises a power that can range between about 30 power decibels to about -90 power decibels, as measured at a single frequency as shown in Fig. 1D.

Regarding claim 5, Melick et al. discloses the ultra-wideband transmitter comprises an ultra-wideband pulse modulator (see section 0182-0183), that is structured to transmit a multiplicity of ultra-wideband pulses.

Regarding claim 6, Melick et al. discloses an ultra-wideband receiver comprises an ultra-wideband/impulse demodulator (see section 0200) that can be structured to receive a plurality of ultra-wideband subcarrier signals and reverse the modulation process.

Regarding claim 7, Melick et al. discloses the wire employed is a coaxial cable (see section 0252).

Regarding claim 9, Melick et al. discloses a method of transmitting data through a community access television network (page 24, claim 19)), the method comprising the steps of:

providing the community access television network (page 24, claim 19); and

transmitting an ultra-wideband signal through the community access television network (page 24, claim 19) through simultaneous use of the spectrum, wherein Gaussian pulses are ultra-wideband pulses as described in sections 0169-0170.

Regarding claim 10, Melick et al. discloses the television network is a cable television network (see sections 0251 and 0254).

Regarding claims 11-13, Melick et al. discloses the ultra-wideband signal (Gaussian pulses) comprises an impulse radio signal (see sections 0197 and 0198), the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds (see sections 0167-0167,wherin 6.67 is in that

range), and the ultra-wideband signal comprises a power that can range between about 30 power decibels to about -90 power decibels, as measured at a single frequency as shown in Fig. 1D.

Regarding claim 14, Melick et al. discloses the ultra-wideband (Gaussian) signal is used to transmit high-speed data (see sections 0167, 0171, and 0181).

Regarding claim 15, Melick et al. discloses the ultra-wideband signal (Gaussian pulses) is transmitted substantially simultaneously with a television signal through simultaneous use of the spectrum (see page 24, claim 19).

Regarding claim 16, Melick et al. discloses the television signal is an audio data signal (see section 0252).

Regarding claim 17, Melick et al. discloses the ultra-wideband signal and television signal co-exist on a common portion of an electromagnetic spectrum of the cable (see section 0173).

Regarding claim 18, Melick et al. discloses the ultra-wideband signal and television signal are transmitted in a frequency band that can range from 100 KHz to 3GHz (see section 0168).

Regarding claim 19, Melick et al. discloses the ultra-wideband signal is transmitted substantially simultaneously with a television signal through use of separate portions of a spectrum (see section 0251), wherein the ultra-wideband pulses are transmitted in the noise spectrum with regards to other signals on the communication line.

Regarding claim 20, Melick et al. discloses the ultra-wideband signal is transmitted in a frequency band that can range from between about 880 MHz to about 3 GHz (see section 0168)

and a television network signal is transmitted in a frequency band that can range from between about 100 KHz to about 3 GHz (see section 0252, wherein 1 GHz is in the recited range).

Regarding claim 21, Melick et al. discloses an ultra-wideband signal transmitted in a frequency band that can range from between about 1 GHz to about 3 GHz (see secgion 0168) and a television network signal transmitted in an adjacent frequency band that can range from between about 1 MHz to about 900 MHz (see section 0252).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CURTIS B. ODOM whose telephone number is (571)272-3046. The examiner can normally be reached on Monday- Friday, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Curtis B. Odom/
Primary Examiner, Art Unit 2611
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